



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/795,773 | 03/08/2004 | Robert C. Newman JR. | P/10-641 | 4092 |
| 7590 | 03/22/2005 | | EXAMINER | |
| OSTROLENK, FABER, GERB & SOFFEN, LLC 1180 Avenue of the Americas New York, NY 10036 | | | LEE, WILSON | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2821 | |

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/795,773 | NEWMAN ET AL. |
| | Examiner | Art Unit |
| | Wilson Lee | 2821 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 08 March 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 1-6 and 17 is/are allowed.

6) Claim(s) 7-10, 12 and 18-22 is/are rejected.

7) Claim(s) 11 and 13-16 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner..
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

Claim Rejections – 35 U.S.C. 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 9, “cut-in and cut-out points” is vague. What do cut-in and cut-out points mean?

Claim Rejections – 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 7, 8, 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Shackle et al. (5,539,281).

Regarding Claim 7, Shackle discloses an electronic ballast for driving at least one lamp comprising:

- a rectifying circuit (17) operatively connectable to an AC line (11);
- a current drawing circuit (60) connected across said rectifying circuit (17), and
- an inverter circuit (Q9, Q10) connected to said rectifying circuit (17) that supplies a lamp current to said at least one lamp (73);
- wherein said current drawing circuit (60) draws current from said AC line when the instantaneous voltage of said AC line nears zero (See Col. 1, lines 54-64) to reduce the total harmonic distortion of the input current drawn by said ballast (See Col. 9, lines 27-39).

Regarding Claim 8, Shackle discloses that said current drawing circuit (60) is a cat ear circuit.

Regarding Claim 18, Shackle discloses an electronic ballast (See Figure 6) for driving at least one lamp (73) comprising:

- a rectifying circuit (17) operatively connectable to an AC line (11);
- a valley fill circuit (60) including an energy storage device, and
- said valley circuit operable to selectively charge said energy storage device (capacitor next to the rectifier 17) from said rectifying circuit through an impedance (21, 27) and a first electronic switch (Q1).

Regarding Claim 19, discloses that said energy storage device is a capacitor (See Figure 6).

Regarding Claim 20, discloses that said impedance is an inductor (21).

Regarding Claim 21, discloses that said impedance is a resistor (27).

Regarding Claim 22, discloses said first electronic switch (Q1) is a MOSFET.

Claims 7, 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Quazi et al. (6,359,395).

Regarding Claim 7, Quazi discloses an electronic ballast for driving at least one lamp comprising:

- a rectifying circuit (R) operatively connectable to an AC line (AC source inside the rectifier);
- a current drawing circuit (C1, D1, D2) connected across said rectifying circuit (R), and
- an inverter circuit (S1, S2) connected to said rectifying circuit (R) that supplies a lamp current to said at least one lamp (Lamp);
- wherein said current drawing circuit (60) draws current from said AC line when the instantaneous voltage of said AC line nears zero (See Col. 5, lines 35-62) to reduce the total harmonic distortion of the input current drawn by said ballast (See Col. 2, lines 34-47).

Regarding Claim 8, Quazi discloses that said current drawing circuit (C1) is a cat ear circuit.

Claims 10, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones (5,258,692).

Regarding Claim 10, Jones discloses an electronic ballast for driving at least one lamp comprising:

- a rectifying circuit (D1-D4) operatively connectable to an AC line (L, N);
- a valley fill circuit (C7, L2, F2) including a capacitor (C7);
- said valley fill circuit (C7, L2, F2) operable to selectively charge said capacitor from said rectifying circuit through an impedance (L2) and a first electronic switching device (F1); and
- an inverter circuit (SW1) including at least one electronic switching device for supplying lamp current to said at least one lamp;
- wherein said capacitor (C7) is charged during at least 90 of each half-cycle of said AC line (See Col. 3, lines 3-9).

Regarding Claim 12, Jones discloses that said valley fill circuit includes an inductor (L2).

Allowable subject matter

Claims 1-6, 17 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art neither discloses nor suggests the following limitations:

a cat ear circuit connected to said source of AC power, said cat ear circuit being adapted to conduct current for a first relatively short time following a first zero crossing of said line voltage and for a second relatively short time prior to the next zero crossing

of said line voltage thereby to reduce the total harmonic distortion of the current drawn from said source of AC power below that which would occur in the absence of said cat ear circuit such as required by claim 1;

a cat ear circuit that supplies power to said control circuit and wherein said inverter circuit draws a first current from said AC line during a predetermined portion of each half cycle which is greater than 900 of each half cycle of said AC line such as required by claim 17.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 11, 13, 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Church et al. (6,023,037) discloses an electric arc welder and plasma cutter.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Wilson Lee
Primary Examiner
U.S. Patent & Trademark Office

3/17/05